

Physician-Nurse communication

Perceptions of physicians in Riyadh

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ABSTRACT

Objectives: The need for communication between nurse and physician in clinical practice is undisputed. The objectives of this study were to describe doctors' perceptions of their communication with nurses, as related to the openness of the communication and the accuracy of the information communicated and to examine if specific sociodemographic characteristics concerning physicians were associated with perception of communication.

Methods: The sample consisted of 200 physicians selected randomly from 6 randomly selected hospitals representing both general and private. A modified Shortell's Intensive Care Unit physician-nurse communication subscale was used to measure the physician's perceptions of the degree to which openness and accuracy described their communication with nurses. Data was collected via a self-administered pilot questionnaire, which also included sociodemographic characteristics.

Results: The overall mean score for openness was 2.61 and 3.19 for accuracy out of a maximum score of 5. For openness the highest mean score was obtained for "listening to physician (4.31)" and the lowest mean score was obtained for "hospital environment (1.84)". For

accuracy, the highest mean score was obtained for "use of medical language (4.37)" and the lowest mean score was for "feedback (1.84)". The results showed a significant difference for experience, age and gender for both types of hospitals. For specialization, title and nationality no significant difference was observed for both types of hospitals for openness and accuracy. Multivariate regression analysis showed that gender, age and experience were the predictor variables for openness and accuracy. With more experienced, older aged females, having the highest mean score.

Conclusion: Communication between physician and nurses needs not remain only a researchable issue; its viability and vitality are crucial to the changing health care scene. Thus, the development of health delivery models that will enable effective multidisciplinary communication, cooperation and wiser use of limited resources in health care is essential.

Keywords: Openness, accuracy, communication, physician, nurse.

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Hospital management has 3 main objectives, namely:- improving the quality of services, controlling the cost and integrating all parts of the hospital to act as one. All 3 objectives can be accomplished through effective communication

between various parts of the hospitals, the most important part of which, is the physician-nurse team.¹⁻³ Communication between nurse and physician is significant, as it has been shown to influence the outcome of patient care and breaks

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down any barriers that can exist.^{3,4} Conflicts in nurse-physician communication has been cited as contributing to nurse shortages, and does not maximize the potential contribution that nurses can make to planning patient care to the lack of satisfaction of nurses towards the professional role. Some hospitals advertise positive communication between physicians and nurses as a recruitment policy.⁵⁻¹¹ It has been demonstrated, that positive professional relationships are reflected in correspondingly lower patient mortality rates.¹²⁻²⁰ Good communication between physician and nurse have been related to an increase of self-concept among nurses, lower nurse turnover and perception of increased quality of care and lower risk length of stay.²¹⁻²⁶ Many have attempted to identify reasons for poor communication between nurses and physicians, and differences between medical and nurse education, gender issues, socioeconomic class, varying levels of nurse education and misunderstanding of one another's role and responsibilities have been cited as contributing to communication problems.²⁷⁻³¹ The aim of the present study is to describe physicians' perceptions with respect to nurses in terms of openness and accuracy and to determine whether sociodemographic variables are associated with perceptions of communication.

Methods. A questionnaire comprising of 42 questions relating to the relationship between nurse and physician, 16 of which pertained to communication was utilized. The sample consisted of 200 physicians working in different hospitals. The study was conducted at 6 selected hospitals using simple random sampling. Three hospitals representing the public sector (King Fahad National Guard, King Khalid Hospital and Security Forces Hospital) and 3 hospitals representing the private sector (Al-Habeeb Medical Center, Dallah Hospital and Al-Mishary Hospital) were selected. Specializations included Medicine, Pediatrics, Obstetrics, Orthopedics and Surgery. Physicians were selected with probability proportional to size of specialization, and specialization selection was carried out with probability proportional to the size within each hospital. Participation was voluntary and confidentiality was assured to respondents. Sociodemographic data collected focused on variables identified as playing a significant role in the communication process and included age, sex, nationality, education level, job title, specialization and years of experience. A self administered modified version of the questionnaire was developed after consulting the literature and was used for data collection. Communication was assessed through the use of the modified Shortell³¹ ICU nurse-physician subscale questionnaire. The openness subscale measures the flow of information between physicians

and nurses and the extent to which physicians and nurses were able to say what they mean when speaking to each other without fear of the environment, repercussion or misunderstanding. The accuracy subscale measures the implementation of information conveyed, as well as nurses performance. The questionnaire assesses the degree to which openness and accuracy characterize interaction between nurses and physicians. The questions were based on the standardized likert scale. The minimum score was 1 (strongly disagree) and the maximum was five (strongly agree). The quality of the scale was measured in terms of reliability and validity. Five experts in the field of Health Administration, reviewed the content validity of the scale, and it was found to cover all the essential components of communication according to Saudi context. Additionally, the reliability of the scale was measured. The internal consistency of the major sub-dimensions and the overall scale was high with Cronbach's alpha 0.89 for openness and 0.90 for accuracy. The Kruskal-Wallis K test and Man-Whitney U-test were used to examine the differences on the mean score for openness and accuracy within sociodemographic variables for both private and public hospitals. Multivariate regression analysis was undertaken to investigate the influence of sociodemographic variables on openness and accuracy. The levels of significance used in this study were P=0.05 and P=0.01.

Results. Data was obtained for 156 physicians giving a response rate of 87%, and revealed that 115 (74%) physicians were in the public sector, while 41 were in the private sector (26%). The majority of the sample were males (74%), and 37% of the ages ranged between 30-40 years. For nationality, 52 (33%) were Saudi and 104 (67%) were non-Saudi. For title, the majority of physicians were Consultants (37%), while the minority was Senior Registrar (5%). The distribution of specialization was uniform across different group categories ranging from 17% to 20.5% except for Orthopedics with only 4%. With regard to experience, 29% were in the experience range of 6-9 years, while only 19% had more than 10 years. Table 1 shows mean score for openness and accuracy questions. The overall mean score for openness is 2.61 and 3.19 for accuracy. For openness the mean score was 2.64 for public hospitals and 2.54 for private. For accuracy mean score was 3.15 for public hospital and 3.31 for private. Man-Whitney U-test showed no significant difference for openness between private and public hospitals (P=0.082), while a significant difference was observed for accuracy (P=0.0037). For openness, the highest mean score was obtained for "Nurse should listen to physician, 4.31", and the lowest mean score was obtained for "hospital environment, 1.84". For accuracy, the highest mean score was obtained for

Table 1 - Mean score for openness and accuracy questions for private and public hospitals.

Openness	Public	Private	Mean
Communicate with the nurse directly	2.30	2.29	2.295
Communicate with the nurse verbally	3.79	3.05	3.42
Communication with nurse is very open	2.17	2.12	2.145
Explain to nurse what you expect from her	2.70	2.54	2.52
Nurse questioning your instructions	2.00	1.80	1.9
Hospital environment enhance communication	1.80	1.88	1.84
Nurse should listen to you	4.22	4.39	4.305
Nurse address you by first name	2.13	2.09	2.11
Accuracy			
Seek nurse advice if she is experienced	3.11	3.27	3.19
Criticize your nurse if she makes a mistake	3.66	3.75	3.705
Interfere in nurse work	3.75	3.76	3.755
Accept nurse judgement on patient condition	3.11	3.22	3.165
Support nurse decision regarding patient care	2.78	2.85	2.815
Use medical language with the nurse	4.29	4.54	4.415
Give feed back to nurse about results	1.70	1.98	1.84
Information validation	2.81	2.88	2.845

Table 2 - Mean score for openness and accuracy for demographic and social variables for public and private hospitals.

Experience	Public		Private	
	Openness	Accuracy	Openness	Accuracy
≤6				
> 6 ≤ 12	2.48**	3.19**	2.34**	3.34**
> 12 ≤ 18	2.56	3.09	2.51	3.35
> 18	2.67	3.24	2.59	3.08
	2.77	3.07	2.73	3.57
Specialization				
Medicine	2.56	3.17	2.49	3.23
Pediatrics	2.63	3.20	2.46	3.21
Obstetrics	2.69	3.19	2.56	3.22
Orthopedics	2.60	3.18	2.46	3.21
Surgery	2.64	3.16	2.47	3.24
Title				
Intern	2.64	3.23	2.58	3.48
Resident	2.61	3.24	2.60	3.50
Registrar	2.64	3.21	2.61	3.45
Senior Registrar	2.69	3.19	2.48	3.48
Specialist	2.67	3.20	2.50	3.42
Consultant	2.65	3.21	2.54	3.46
Nationality				
Saudi	2.65	3.11	2.46	3.25
Non-Saudi	2.64	3.18	2.56	3.16
Sex				
Male	2.42**	3.08**	2.49**	3.26**
Female	2.88	3.20	2.66	3.42
Age				
≤30	2.48**	3.08**	2.25**	3.00**
31 - 40	2.59	3.17	2.45	3.20
41 - 50	2.60	3.21	2.48	3.24
> 50	2.77	3.21	2.63	3.56
** statistically significant at P <0.01				

"use of medical language, 4.42", and the lowest mean score was for "Give feedback to nurse about results, 1.84". Mean score for verbal communication with nurses was higher for public hospitals (3.79) compared to private hospitals (3.05). Table 2 shows the mean score for openness and accuracy for both types of hospitals. Kruskal Wallis one way ANOVA was used to examine the differences between mean scores for openness and accuracy for private and public hospitals. For experience, gender and age, a significant difference for openness and accuracy for both types of hospital was observed (p=0.01). More experienced physicians are more open and accurate compared to less experienced. For gender, females showed the highest mean score for both openness and accuracy. A linear trend was observed for age, the younger aged group showed the lowest mean score, while the older aged group showed the highest mean score. For specialization, title and nationality no difference was observed within and between types of hospital for both openness and accuracy. The results of multivariate regression of sociodemographic variables with openness and accuracy mean scores are shown in Table 3. Experience, age and sex influenced both openness and accuracy, while only type of hospital influenced accuracy. Nationality title and specialization are not significantly associated with openness and accuracy. The independent variables included accounted for only 51% of the variation in the model.

Discussion. The mean score for both openness and accuracy was low for both types of hospitals, suggesting that communication between physicians and nurses was poor. This finding is in keeping with other studies.^{8,23,24,32} Shortell et al³¹ found no relation between openness and accuracy for government and

Table 3 - Multivariate regression of sociodemographic variables with openness and accuracy.

Variables	Openness	Accuracy
Hospital	-0.044	0.241**
Age	0.213**	0.223**
Sex	0.227**	0.214**
Nationality	-0.024	0.096
Title	-0.091	-0.119
Specialization	0.080	0.099
Experience	-0.255	0.233**
**Statistically significant at P<0.01		

non-government hospitals and they attributed this to factors not included in the study such as job satisfaction and type of personality. The hospital environment has an effect on the relationship between the nurse and the physician. In our study, the mean score was 1.60 for public and 1.88 for private. Closed or semi-closed communication is more common in public hospitals than in private. This may be due to stress in public hospitals, due to more duties, crowding and the size of the hospitals, this is also in agreement with other studies.^{21,25,26,28} Kennedy and Garvin²¹ found a healthy interaction pattern between the 2 professions in general hospitals and they attributed this to physicians in the study being younger and more aware of the contribution that nurses can make to patient care. Use of medical language by physicians with nurses showed a high mean score. This may be due to the fact that physicians use medical language everyday and it may become in some way an everyday language. After years of medical practice it may be difficult for physicians to clearly differentiate between medical and everyday language when discussing medical issues with nurses. Richard et al²⁷ stated that the use of medical language may symbolize for physicians, the distinctiveness and status of belonging to the medical profession. They found that physicians perceived that speaking to nurses using medical language 62% of the time and 75% when speaking with each other. Feedback is a positive sign for the exchange of information with nurses and creates a climate of mutual respect and trust. In our study, the majority of the time very few physicians (33%) gave feedback to nurses, and non-Arab physicians gave feedback more often. Each nationality has its own culture and tradition, which affects the attitude of their individuals. In many Arab countries, tradition set limits in dealing with females and this also

applies in the hospital setting, this supports other findings.^{28,29,32,33} In Pellegrino's³² findings, he stated that communication problems existed due to physicians' attitudes and Verscuren³³ indicated attitude problems were related to traditions. Thus feedback in this study is not related to gender issues, this contradicts Woodart⁵ and Katzman's³⁴ findings, as they indicated that a lot of communication problems exist due to gender issues. More than 80% of physicians indicated that nurses should listen to them carefully. Kennedy and Garvin²¹ reported that listening was the most important nurse communication behavior in their interaction with physicians. This study suggested a one-way communication flow from physicians to nurses. This is in agreement with previous studies.^{15,16,20} Mrasden²⁰ stated that "This pattern of one-way communication may reinforce nurses' dissatisfaction with their decision-making role and doesn't maximize the potential contribution that nurses make to planning patient care". Much of the information exchange is carried out through verbal communication between nurses and physician. The higher mean score for verbal communication in public hospitals compared to private hospitals may be due to the fact that nurses and physicians at public hospitals maintain an easier, more relaxed and informal working atmosphere, while in private hospitals the relationship is more formal with an atmosphere of competition between the professionals can often be detrimental to working relations.²⁶ As for the correlate of sociodemographic variables with openness and accuracy, age, experience and gender appear to influence openness and accuracy, while only hospital type appears to influence accuracy. Much of the information published to date, however, remains anecdotal in nature rather than based on observational investigation. Differences between medical and nursing education, sociodemographic class, misunderstanding of one another's roles and responsibility has been suggested in various articles^{35,36} as contributing to communication problems between nurse and physicians. Our data appears to indicate that openness and accuracy were significantly associated with physicians who were females, of older age and more experienced. Older physicians are more positive than younger ones when it comes to the exchange of information regarding patients' daily activities. Saudi Arabia hires the most experienced physicians and it may be that experienced professionals find this kind of information more important than younger ones.³³ The significance of accuracy in relation to private hospitals may be due to the prevailing formal atmosphere and very strict terms of service.

In conclusion, we want to highlight that this is the first study in the Kingdom which addresses communication between nurses and physicians. The significance of this study is that it has provided an

empirical foundation for a beginning of understanding of physician nurse communication in Saudi Arabia. The study showed that physicians and nurses need to develop their communication skills and we do recommend this vital area to be covered in seminars, conferences and workshops. Most importantly, new educational strategies that include interdisciplinary courses must be introduced into medical and nursing school curricula. We are quite aware that many issues to do with communication have not been addressed. The reader will have questions regarding assertiveness issues, conflict resolution techniques and other items that may impede healthy communication. We did not address the perception of nurses regarding their communication with physicians, a similar research study is desirable.

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